

What is claimed is:

1. An in-line system used in a semiconductor package assembling process, the system comprising:

5 a wafer loading unit for loading into the system a wafer having a back side which has not been subjected to grinding;

a wafer grinder for grinding the back side of a wafer by the wafer loading unit; and

10 a dicing tape attaching unit which attaches a dicing tape comprising one of a pre-cut dicing tape and a general dicing tape to the back side of the wafer after grinding by the wafer grinder.

2. The system of claim 1, wherein a lamination tape is attached to a top side of the wafer, the wafer and attached lamination tape being loaded into the wafer loading unit so as to prevent contamination in the wafer grinder.

15 3. The system of claim 1, wherein the wafer grinder includes a UV light radiating portion which irradiates UV light onto a top side of the wafer, so as to effectively remove the lamination tape after the grinding is completed.

20 4. The system of claim 1, wherein the wafer after grinding by the wafer grinder has a thickness of 20-200 μm .

25 5. The system of claim 1, which further includes a ring frame to which said wafer is attached, and an unloading unit which transfers the ring frame and wafer to a location outside the system.

6. The system of claim 1, wherein the dicing tape attaching unit includes a tape loader which supplies one of the pre-cut dicing tape and the general dicing tape to the system.

30 7. The system of claim 6, wherein the tape loader rotates in one direction when supplying the pre-cut dicing tape and in the opposite direction when supplying the general dicing tape.

8. The system of claim 7, wherein the tape loader rotates clockwise when supplying the pre-cut dicing tape.

9. The system of claim 7, wherein the tape loader rotates counterclockwise when supplying the general dicing tape.

10. The system of claim 1, which further includes a liner film winding reel which winds the portion of the pre-cut dicing tape remaining after a pre-cut process is performed together with a liner film.

11. A dicing tape attaching unit comprising:
a tape loader which supplies one of a pre-cut dicing tape and a general dicing tape depending on the direction in which the taper loader rotates;
a tape cutter portion which cuts a portion of the general dicing tape remaining after the general dicing tape is attached to the back sides of a wafer and a ring frame; and
an unloading unit which transfers the ring frame, to which the pre-cut dicing tape or general dicing tape is attached to the wafer, to a location outside the unit.

12. The unit of claim 11, wherein the tape loader rotates clockwise when supplying the pre-cut dicing tape.

13. The unit of claim 11, wherein the tape loader rotates counterclockwise when supplying the general dicing tape.

14. The unit of claim 11, which further includes a liner film winding reel which winds a liner film separated from the pre-cut dicing tape or general dicing tape.

15. The unit of claim 14, wherein the liner film winding reel winds the amount of the pre-cut dicing tape remaining after a pre-cut process is performed.

16. The unit of claim 11, which further includes an attaching table where the pre-cut dicing tape or general dicing tape is attached onto the ring frame and the wafer.

17. The unit of claim 11, which further includes a press roller portion that presses the pre-cut dicing tape or general dicing tape supplied by the tape loader and the ring frame.

18. The unit of claim 11, which further includes a peeling unit that removes from the attaching table the portion of the general dicing tape remaining after the general dicing tape is attached.

19. The unit of claim 11, which further includes a mount frame transferring portion that transfers the ring frame, in which the pre-cut dicing tape or general dicing tape is attached to the wafer, to a lamination tape detaching portion.

20. The unit of claim 11, which further includes a wafer stacking portion for stacking a wafer used to attach the pre-cut dicing tape or general dicing tape to a wafer.

21. The unit of claim 11, which further includes a ring frame stacking portion that stacks a ring frame used to attach the pre-cut dicing tape or general dicing tape to a wafer.